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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,397	10/01/2003	Frank Rehders	9047MQ	7544

27752 7590 03/08/2007

THE PROCTER & GAMBLE COMPANY
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EXAMINER	
FORTUNA, JOSE A	
ART UNIT	**PAPER NUMBER**
1731	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/676,397	REHDERS ET AL.	
	Examiner	Art Unit	
	José A. Fortuna	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 9-18* is/are pending in the application.

4a) Of the above claim(s) *9-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 17, 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-3, the phrase "the furnish" lacks of antecedent basis.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S: 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-6 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reinheimer et al., US Patent No. 5,810,972.

Reinheimer et al. teach a multiply tissue in which at least one of the plies contains a hemicellulose additive, see abstract. In column 4, lines 12-26, Reinheimer et al. teach that one of the preferred hemicellulose is Xylan and in the same lines they teach the refining and the same pulp as claimed. Reinheimer et al. teach also that cationic additives can be used to fix the xylan, see column 7, lines 51-62. Even though Reinheimer et al. teach that when xylan is used as a sole hemicellulose component, the addition amount is outside the claimed range. However, the amount of xylan is within the claimed range when added as highly milled pulp, i.e., birch pulp, since they teach the same type of xylan containing pulps, highly refined Birch pulp and at the same range as claimed, see for example claims 10 and 11 of Reinheimer et al. Claims 4-6 of the present invention evidence that that the xylan content of the birch pulp of Reinheimer et al. is within the claimed range, because they are the same pulps and they are added at overlapping ranges. Reinheimer et al. teach that the highly milled pulp has the Schopper-Riegler slowness value of at least 80°SR that covers, approximately to Canadian freeness of less than 100, around 50[1].

[1] Conversion table of http://www.finebar.com/resourcecenter/freeness.html was used.

Note that the claims are open to other components, i.e., by virtue of the use of the transitional phrase "comprising," and therefore, the use of the birch pulp reads on the claims as claimed.

Even though Reinheimer et al. teach the use of cationic fixing agents to fix the xylan to the fibers, they are silent as to the claimed range. However, the use of cationic agents to fix an additive onto the fibers is very well known in the art and it has been held that "[T]he discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art. *In re Antoine*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977); *In re Aller*, 42 CCPA 824, 220 F.2d 454, 105 USPQ 233 (1995). The discovery of an optimum value of a known result effective variable without producing any new or unexpected results is within the skill of the routineer in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

The fact that the cited reference is silent regarding a range of the cationic fixing agent to be added to the xylan containing pulp, would suggest to one of ordinary skill in the art that the amount of such additive would depend on the type and condition of the pulp and the desired levels of fixing. Note also that a disclosure in a reference is not limited to its specific illustrative examples, but must be considered as a whole to ascertain what would be realistically suggested thereby to one of ordinary skill in the art. *In re* Uhlig, 54 CCPA 1300, 376 F2d 320; 153 USPQ 460.

Response to Arguments

7. Applicant's arguments with respect to claims 1-6 and 17-18 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's arguments filed on February 08, 2007 have been fully considered but they are not persuasive.

Applicants argue that the levels of Xylan in the cited reference pulp is above the claimed range, since the xylan content of the Birch pulp is between 25 to 35% and the addition levels of the cited reference is between 1 to 6%, giving an addition range of the additive, between 0.25 to 2.1%. The arguments are not convincing for the following reasons:

- The levels of xylan of Birch Harwood are between 25 to 35%, but the levels decrease for a pulp, especially if the pulp is a chemical pulp. The levels of xylan for birch pulps is a lot lower than the non-treated Birch, i.e., applicants are referring to the levels of xylan in the chips or natural levels of xylan of a birch plant, not to the xylan levels of a xylan pulp.
- The above is more evident by applicants own admission on page 6, lines 27-29, in which applicants state that the levels of pulp, birch pulp, used to get the xylan range within the claimed range is within 0.1 to 10%, preferably from 3% to 8% and most preferably from about 4% to about 6%. That is, if one follows applicants' arguments, the most preferably range is within 1% to 2.1%, which would totally contradict their own teachings.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure in the art of "The use of Xylan in multi-ply tissues."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to José A. Fortuna whose telephone number is 571-272-1188. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

José A Fortuna
Primary Examiner
Art Unit 1731

JAF